sometimes yield to the acids after having resisted much more active measures. The ointments used for the resolution of syphilitic tubercles are those of the proto-nitrate, proto-ioduret, or deuto-ioduret of mercury. Gentle inunction should be made with the finger over the largest tubercles. Of all the ointments, however, that have been used at the Hospital of St. Louis, one composed of twenty or thirty grains of the ioduret of sulphur to an ounce of lard has been found to be the most efficacious. M. Biett employed this remedy with good effect in cases where nearly the whole body was covered by scars and large tubercles. The ointments first mentioned will also be found servicable in modifying or arresting the progress of the venereal ulcer, and the severe pain by which it is generally accompanied may be alleviated by the application of small pieces of lint smeared with the *hydrocyanic cerate.*

The foregoing remedies will be materially assisted in their action by the judicious administration of baths and lotions; thus, for example, alkaline lotions are the most appropriate for cases of pustular syphilitic eruption. The vapor douche will assist considerably in producing resolution of the tubercular form, and should be directed to the parts affected for the space of ten or twelve minutes at a time. Vapor baths are found to be exceedingly servicable in the scaly form of the disease.

I have now sketched an outline of the history of the *Eruptions of the Face;* and, as I have repeatedly observed, these papers are intended merely as an outline, and not a complete history of the subjects of which they treat. For a more elaborate account of the various eruptions mentioned, I refer the reader to the systematic treatises on diseases of the skin, and especially to the work of M. Cazenave. M. Cazenave's essay on the syphilitic eruptions is by far the most complete, the most faithful, and at the same time the most simple account of this interesting class of diseases that has yet been written. Indeed, I know of no other original essay on the same subject that can be at all compared to it; and as a proof of its excellence I may mention that it has been translated into the language of every country in which medicine is cultivated as a science.

29, Margaret-street, Cavendish-square,
March 4, 1843.

REMARKS ON CHOLERA.

TO THE EDITORS OF THE PROVINCIAL MEDICAL JOURNAL.

GENTLEMEN,—In my first letter to you on the subject of cholera, I stated it as my firm opinion that it was to be ascribed to the "sudden abstraction of nervous energy from the cerebro-spinal system of nerves." My object, then, in the present communication will be to examine into the state of the nervous system, as the best mode of illustrating what I then intended to convey to your readers. Before proceeding further, I may be allowed now to say, that for the term "abstraction" I would substitute sedative impression. The object which induces me to offer this qualification will, I trust, appear in the sequel.

Having already gone over the more striking symptoms of the disease, I may now content myself with the consideration of those more immediately connected with the nervous system, although it is impossible to do this without reverting in some degree to both the respiratory and circulatory systems. This is more necessary from my having imputed a great deal to a deranged condition of the respiratory system of nerves.

The circumstances which now call for especial notice I consider to be the following:—

1. The sudden prostration of all the vital powers.
2. The state of the respiration, which in many of the severer cases has been hardly perceptible *ab initio.*
3. The corresponding dimunition of the action of the circulatory organs.
4. The excruciating torture arising from the spasms, which affect both the voluntary and involuntary muscles.

In regard to the first, it may be observed that, even in medium cases, it is so sudden as to prohibit the idea of it being the effect of the discharges, which, in fact, it very frequently precedes. That it is caused by the defective oxygenation of the blood owing to imperfect respiration, is no less improbable; hence, we must look for some other explanation, and such I firmly believe is met with, when we remember the anatomy of the respiratory nerves, on which we know the integrity of action of both lungs and heart to depend.

I am perfectly aware that to this view many and apparently well-founded objections may be opposed, and also that such objections may rest upon the basis of actual experiment. It may be urged that respiration may be artificially sustained when the connection of the lungs with the nervous centre has been interrupted by the division of the pneumogastric nerve; and that the heart may be excited to contraction under similar circumstances. This, I conceive, does not in any measure invalidate my proposition, as a piece of muscle may be made to quiver by the same means; yet will any one be bold enough to assert that muscle is, as to its action, merely influenced by, and not dependent on, nervous influence. My belief is, that the nervous, respiratory, and circulatory systems are so intimately connected, and so reciprocally dependent one on the other, that not one of them can be materially deranged without manifest implication of the others, and of this pathological observation affords us daily evidence. It may not be irrelevant here to advert to the effect on the sensorium produced by disease of the heart, and of cerebral disease on the heart, of which most practical men must have had but too many examples. If, then, we consider the extraordinary and rapid prostration of the powers of the system in cholera, whether we regard the vital or natural functions, we can only account for it by the supposition that the ganglionic system is primarily impressed, in whatever mode such impression may be made upon it. On this a few remarks will be offered, in connection with the causation of the disease. Suffice it now to add, that I deem the existence of a deprivation or depression of the energy of the respiratory and other ganglionic nerves as more than adequate to explain the whole of the phenomena which are justly held as pathognomonic of cholera,

and that this appears corroborated by the simultaneous and strictly correspondent derangement of the three great systems on the integrity of which life depends. The dependence of the respiratory system on its due supply of nervous influence is most abundantly proved both by physiological experiment and by pathological observation, and so I believe, also, the circulatory system to be—but even granting that the heart is only influenced by, and not dependent on, nervous influence, the idea of cholera being mainly attributable to some impression made on the nerves of respiration is not in the slightest degree invalidated, but on the contrary acquires strength, as even those who may question the extent of the heart's dependence on the nervous system cannot possibly deny that, by such imperfect state of the respiration, the blood no longer undergoes its normal change in the lungs, and is consequently no longer fit for the support of the vital process, or, according to a very old opinion, ceases to stimulate the heart. In further confirmation of the above, I must reiterate what was stated in a former paper—viz., that the derangement of the function of the heart and lungs, being contemporaneous as to its occurrence in this anomalous disease, such state cannot be regarded as the mere necessary consequence of disorder of the one upon the other, but must be ascribed to some common cause operating upon both, and which cause may be looked upon as dependent on the very intimate nervous connection existing between the heart and lungs. Having said thus much on the subject, it seems unnecessary to dilate upon the state of the respiration and circulation; I shall now, therefore, make a few brief remarks on the spasms, which form so common and distressing a feature in cholera.

At first sight it may appear somewhat paradoxical to offer the explanation which I am about to do. A very little consideration, however, will serve to do away with such apparent inconsistency. That spasms are to be generally ascribed to some irritating cause operating on the nerves supplying the parts affected, must be admitted. A familiar and apt illustration is afforded us in the effect produced upon the nervous system, and more especially of children, by acrid matter in the intestinal canal, whether in the form of improper and indigestible food or in that of depraved secretions. In other cases, however, we meet with increased nervous action under very opposite circumstances, which, *prima facie*, should lead us to expect diminution, or even suspension of nervous influence instead of increased or irregular action. As examples of this, it may be well to cite the convulsions which so frequently occur after hæmorrhage, more especially uterine; the same where narcotic poisons have been taken, or noxious gases have been inhaled; and, finally, the high degree of nervous excitability which so frequently occurs in the last stage of many diseases, where life has been gradually reduced to its lowest ebb. It is only further necessary to reiterate a statement previously made—viz., that of whatever nature the morbid impression causing cholera may be, it has but little power over the brain itself, as is amply borne out by the normal state of the senses and the unimpaired condition of the intellect to the very last. It is true that, in many cases, a perfect state of apathy may be observed; but when the patient is roused, we find in it no resemblance to coma; in fact, consciousness remains. In a few cases this may not have been so, but so far as my observations enable me to judge, such deviations from what has been alleged may be regarded as the effect of the sad abuse of opium and stimulants which so notoriously characterised the earlier treatment of the disease in this country, and into which fatal error I frankly declare that I myself fell.

In my first letter I stated my conviction that the cause of cholera was to be looked for in some atmospheric peculiarity, and that such alteration appeared to relate to its electrical condition rather than to its mere purity or the reverse; the same remark applies to its temperature and moisture. Cholera having occurred equally in healthy and unhealthy situations, in places abounding with and free from miasmata, in cold and in hot climates, and at every season of the year. It was also stated, that although it sometimes appeared subservient to, it had also defied the laws of infection and contagion, of epidemic and endemic influence. Can this statement be disproved as to its truth? For its confirmation it will be found sufficient to refer to the statistics of the disease in India, on the continent of Europe, in this country, and in America.

Let us now inquire what circumstances, if any, have appeared to favor the supposition of its origin in electrical causes? To enter upon a protracted examination of this part of the subject is quite incompatible with the limits necessarily observed in papers like the present. I must, therefore, confine myself to the simple statement of what may be regarded as confirmatory of such origin of the disease; and must refer such of your readers as may feel any curiosity on the subject to a pamphlet published at Jedburgh, in 1832, its author being Mr. James Mather, of South Shields, who was at the time a member of the board of health in that town. Mr. M. has very minutely detailed meteorological appearances which he observed in the direction of Sunderland when cholera prevailed there, in that of Newcastle previous to its outbreak in that town, and subsequently to the north-east of Newcastle, in which direction it committed very great ravages. The peculiarities of the clouds, which Mr. M. has carefully described, were, though less developed, noticed by me, in the vicinity of New Bridge, about the time of the cholera appearing there; and to my mentioning such fact to a professional friend, I owe the perusal of Mr. Mather's observations, not being previously aware that he had written on the subject, nor having heard of such appearances. The important influence of electricity over the character and course of clouds is so familiarly known as to render comment superfluous. Hence, if no question exist as to the accuracy of the observations made, it is legitimate to infer that electricity must have acted an important part in the production of such phenomena. The appearance which I noticed consisted in the presence of a peculiarly dark, murky cloud, circumscribed as to extent, and well defined, the rest of the sky being perfectly cloudless; the figure of the cloud was the segment of a circle, being convex on its upper surface, and presenting nearly a horizontal line on its lower part; one striking feature was, that it seemed to be quite stationary, although at the time

there was a tolerable breeze. The light thrown over the country can only be compared to that existing during a partial eclipse of the sun; this could not rationally be regarded as depending on the relative position of the sun, cloud, and earth, as the sun was nearly at its altitude whilst the cloud was nearly north-west. The electrical origin of cholera acquires further support from the well-known property of electricity, not only to temporarily localise itself, but also to pursue a particular and undeviating course in its changes from place to place. Here, again, if we compare the course of cholera, a striking analogy will be found. Let me now, in conclusion, pass to what I regard as pathological proofs of the justice of the view now advocated. They are the following:—

The sudden, and in some cases almost immediately, fatal impression made on the system, which had but a moment before been in a perfectly healthy and vigorous state.

The condition of the blood abstracted during life, more particularly as regards the slowness of its coagulation and its dark grumous appearance.

Finally, the semifluid state in which it is found on dissection after death—and, in many cases, the flaccid state of the muscular system, and peculiar discoloration of the skin.

If the above phenomena do not strictly accord with the effects produced by lightning in its mitigated and concentrated form, I confess myself at a loss where to look for analogies, or to find a justification for attaching any importance to them.

In my next, a few practical remarks will be offered on the treatment of the disease.

I have the honor to remain,
Your most obedient servant,
GEORGE FIFE, M.D.

Sunderland, Feb. 23. 1843.

OBSERVATIONS
ON THE
TOPICAL PATHOLOGY OF THE NEURALGIÆ.

By Dr. BLACK, Manchester.

[From a Paper read at the Manchester Medical Society, March 1, 1843.]

The pathology of those severe afflictions—the neuralgiæ—is, perhaps, the least understood of all the numerous diseases that are chiefly characterised by pain, and the inquiries that have been made into the matter have been more directed towards their constitutional and exciting causes than into the intimate or proximate lesions which constitute their essence and being. Without adverting to the literature on this important class of diseases, which is very amply found in the works of Hutchinson, Martinet, Swan, Elliotson, Teale, Halford, Piorry, Scudamore, and Valleix, with a few others of late date, I shall proceed to analyse the phenomena of the disease, and submit a solution of the intimate nature or topical causes on which neuralgia, especially of the intermittent species, more immediately depends.

The chief characteristic of the disease is pain, and that of a peculiar sharp, poignant, lacerating, or excruciating nature. The pain along the course of a nerve, or at its issue through some texture or other of the body, is also very often sudden in its invasion, temporary in its duration, or intermittent, and receding or departing sometimes as quickly, but more frequently with a gradual decline. Its recession generally leaves the part previously affected somewhat numb, as if it were contused or bruised, and the integuments often suffused. If the complaint explodes itself on the face or head, the senses remain after an attack for a while blunted, and the powers of the encephalon more or less exhausted and enervated.

One great diagnostic feature of neuralgia is its intermittence, which is sometimes very regular, as much so as a normally constituted quotidian or tertian fever, leaving the body or part in the interval free from any pain or sensible derangement of health. At other times the occurrence of the pain is very irregular, or at most remittent, and when the affection is long established, the diagnostic pain is only marked by a periodical or indeterminate exacerbation. The intermittent pain may also be engrafted on a deranged constitution or a diffused state of chronic rheumatism or gout. The next observation that may be made regards the condition of the system under which this affection obtains; and again, the several parts, organs, and tissues, in which it elicits its ruling character. Preceding or accompanying this complaint we frequently witness several deranged states of the nutritive and chylopoetic organs and of the nervous system, such as mucoenteric complaints, biliary obstructions or vitiations, hæmorrhagies, lesions or weaknesses of the cephalic, spinal, or ganglionic nerves, from mental or moral excitement, distress, or exhaustion. We moreover find that the complaint has originated from sudden exposure to severe cold; or to one less intense, conjoined with damp or malaria; and especially if the exposure have been topical, while the rest of the body has been warm, perspiring, or inactive. The condition of the parts affected are, however, more particularly the object of our observations, and to these we shall confine ourselves in the course of this paper, leaving the above enumerated subjects as being sufficiently recognised to appreciate the few simple but more precise data and inferences to be produced.

The principal parts on the head and face, where these peculiar attacks of pain are manifested, are—the supraorbital foramina or notches, the suborbital, mental, stylomastoid foramina, and the suboccipital region, the focus of which latter pain is between the base of the cranium and the atlas vertebra. On the trunk these pains are more particularly observed to be along each side of the spine, constituting spinal neuralgia; and again, midway along the periphery of the ribs, and next anterior to their osseous termination, giving rise to what are called intercostal neuralgia. These pains also manifest themselves in some transversely parallel lines over the abdomen, also towards the rectum, uterus, testes, and penis, on or about the knee from the anterior crural nerve, and also along the course of the sciatic nerve, extending even to the peroneal and plantar nerves. I may also advert to the irregular location of what are called the painful nervous subcutaneous tubercle, situated, according to my observation, more frequently on the trunk or upper extremities than elsewhere.

Our next inquiry is, What is there peculiar in these several parts or foci, whence irradiate those pungent or lacerating pains and other lesions of sensation and